

REMARKS

Claims 1-47 are pending in the present application. Claims 1, 18, 26 and 43 have been amended as discussed below. Support for these amendments can be found in paragraphs [0010], [0015] and [0019] for example, and throughout the specification. Thus, no new matter has been submitted, and entry of this amendment is respectfully requested.

Claim Objections

The Examiner objected to claims 18-25 as being dependent upon a rejected base claim, but noted that they would be allowable “if rewritten in independent form including all of the limitations of the base claim and any intervening claims.”

Applicant submits that this objection should be reconsidered and withdrawn based on the amendments to the claims and the following arguments, because they are directly or indirectly dependent from allowable independent claim 1, as discussed below.

Claim rejections-35 U.S.C. §102

The Examiner rejected claims 1, 4, 12, 15, 26, 28, 29 and 43 under 35 U.S.C § 102(b) as being anticipated by Niskanen, USPN 5,240,564 (hereinafter “NISKANEN”). Regarding claims 4 and 15, the Examiner alleged that NISKANEN teaches the zone heating of the roll, wherein heating within each zone is independently adjusted. The Examiner alleged that claims 26, 28, 29 and 43 are rejected because “the individually controlled sections 21-I to 21-N correspond to the claimed axial zones and the air delivered to those sections corresponds to at least the claimed first, second, and third heated gases.” Applicant respectfully traverses this rejection as discussed below.

It is true that NISKANEN proposes to first give the roll a cylindrical form by means of the nozzles in question, thereby achieving a straight nip between the roll and a crown-adjustable counter roll, and only then to “profile” the counter roll wherever this should be necessary in view of the web to be treated. Contrary to NISKANEN, the present disclosure

puts forth direct heated gas to the roll in such a way that the roll itself gets “profiled” through thermal expansion at locations where this is necessary for obtaining the desired calendaring results. Thus, reconsideration and withdrawal of this rejection are respectfully requested based on this argument and the amendment to the claims as further discussed below.

Second, the Examiner also rejected claims 1-3, 5, 8-10 and 12-14 as being anticipated by Wahren, USPN 4,324,613 (hereinafter “WAHREN”). Regarding claim 1, the Examiner alleged that “WAHREN teaches heating a roller used in the production of a material web from the outside by a heated gas.” The Examiner also alleged, regarding claim 2, that WAHREN teaches using fuel gas burners arranged near the roller surface. Claim 3 stands rejected by alleging that WAHREN teaches combustion gases emerging from the burner that act on the roll surface. The Examiner rejected Claim 5 by alleging that WAHREN teaches arranging several burners along the length of the roller. The Examiner rejected claim 8 by alleging that WAHREN teaches the use of fuel gases as one of the possible fuel types for the burners. Regarding claim 9, the Examiner alleged that “a mixture of fuel and air is deemed inherently necessary in a combustion burner,” and WAHREN teaches using a combustion burner. Claim 10 is rejected by alleging that WAHREN teaches having the pipe upstream of the combustion zone. Finally, claims 12-14 are rejected by alleging that WAHREN teaches controlling combustion burners by adjusting the relative fuel to air mass flow rates. Applicant respectfully traverses this rejection as discussed below.

Applicant has amended the independent claims to add further limitations. In particular, Applicant submits that NISKANEN and WAHREN do not disclose a “mixing element,” which is supported in paragraphs [0010], [0015], and [0019] of the instant specification, among other places. Therefore, Applicant submits that adding the feature of a “mixing element” to the claims distinguishes the present claims from the cited prior art. It is noted that although this feature is claimed in the dependent claims, it appears that the Examiner did not treat this limitation.

Additionally, Applicant has incorporated one of the features from claim 18 in the instant rejected independent claim 1. This is because the Examiner indicated that claim 18 (which is dependent on claim 1) will be allowed if rewritten in independent form. If claims 1, 26 and 43 are allowable, all of the rejected dependent claims should be allowable (*i.e.*, all of the remaining claims).

For the foregoing reasons, Applicant respectfully submits that the rejection of these claims under §102(b) should be reconsidered and withdrawn.

Claim Rejections under 35 U.S.C §103(a)

The Examiner rejected claims 6, 7, 11, 16 and 17 under 35 U.S.C. §103(a) as being unpatentable over WAHREN in view of Ledjeff, USPN 5,810,577 (hereinafter “LEDJEFF”). The Examiner alleged that although WAHREN does not disclose use of a natural gas as a fuel, the use of hydrogen as a fuel, nor the use of a catalytic burner, each of those features are well-known in the art, in view of LEDJEFF. Applicant respectfully traverses this rejection as discussed below.

Applicant submits that neither WAHREN nor LEDJEFF disclose, teach or mention anything about the use of at least one mixing element. WAHREN cannot be used alone in this instance without LEDJEFF because, in the Examiner’s words, WAHREN does not disclose “the use of a catalytic burner...the use of hydrogen as fuel...[or] the use of natural gas as fuel....” However, claim 1 has been amended to include the feature “at least one mixing element.” As such, all of claims 6, 7, 11, 16 and 17, which are directly or indirectly dependent on claim 1, would include the “at least one mixing element” feature. As such, reconsideration and withdrawal of the rejection of these claims are respectfully requested.

Next, the Examiner rejected claims 4 and 15 under 35 U.S.C. §103(a) as being unpatentable over WAHREN in view of NISKANEN. The Examiner alleged that although WAHREN does not disclose independent adjustment and control of the heating in zones in the axial direction, NISKANEN teaches such features; therefore, the Examiner concluded,

it would have been obvious to one skilled in the art to implement zonal control of the burners in WAHREN. Applicant respectfully traverses this rejection as discussed below.

Applicant submits that neither WAHREN (as argued above) nor NISKANEN disclose, teach or mention anything about the use of at least one mixing element. As such, reconsideration and withdrawal of this rejection are respectfully requested.

Lastly, the Examiner rejected claims 27, 30-42 and 44-47 under 35 U.S.C. §103(a) as being unpatentable over NISKANEN in view of WAHREN and LEDJEFF. The Examiner alleged, with regard to independent claims 26 and 43, that although NISKANEN does not disclose the use of fuel combustion burners, WAHREN renders obvious use of fuel combustion burners to one of ordinary skill in the art. Continuing on, the Examiner specifically mentioned that LEDJEFF renders obvious the use of combustion burners of the catalytic type, as well as the use of known fuels, such as hydrogen gas or natural gas, in combustion burners. Applicant respectfully traverses this rejection because all of the arguments above apply equally here. Additionally, Applicant submits that LEDJEFF does not cure the deficiencies of NISKANEN and WAHREN. Thus, the reconsideration and withdrawal of this rejection are respectfully requested.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

It is believed that all of the pending issues have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this reply should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this reply, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Should the Examiner have any questions or comments regarding this matter, the undersigned may be contacted at the below-listed telephone number.

Respectfully submitted,
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